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# From Job-Based Pay to Skill-Based Pay in Unionized Establishments: A Three-Plant Comparative Analysis

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### Résumé de l'article

La rémunération basée sur les compétences (RBC) est une innovation qui s'étend rapidement et qui vise à payer les individus en fonction des qualifications qu'ils possèdent et non en fonction de leur performance. Malgré l'intérêt croissant envers la RBC, les écrits scientifiques sur le sujet sont plutôt rares. En particulier, il y a deux sujets importants qui n'ont pas été touchés, ils concernent : (1) la conception et l'implantation de la RBC dans les organisations syndiquées, et (2) la transition d'une rémunération selon la tâche à une rémunération selon les compétences. La présente étude examine l'expérience de trois entreprises manufacturières syndiquées en Amérique du Nord qui ont récemment implanté une RBC en transformant leur ancien système de rémunération selon la tâche (RST).

Ces cas démontrent clairement qu'il est possible de concevoir et d'implanter avec succès une RBC dans des lieux de travail syndiqués caractérisés par une longue tradition de rémunération tayloriste et par une convention collective serrée. Ces cas nous enseignent que les leaders syndicaux doivent comprendre et accepter la logique des réformes sous-jacentes des lieux de travail et le lien entre ces réformes et les changements proposés dans le système de rémunération. S'il y a acceptation à ce niveau, il est alors possible de s'entendre sur les détails complexes de la modification des pratiques existantes et de l'introduction de systèmes innovateurs. Il est difficile de s'imaginer patrons et syndicats venir à bout de la complexité des droits acquis, des pratiques existantes et de la peur du changement sans une compréhension et un engagement mutuels envers les nouveaux systèmes.

Les syndicats ont joué un rôle de premier plan dans l'administration quotidienne des régimes. Il est important d'intégrer le rôle des syndicats dans l'administration d'une RBC et dans les réformes du système de travail. Cela est illustré dans le cas 1 où le comité mixte est responsable tant pour l'administration de la RBC que pour les équipes autogérées de travail.

Dans la transition d'une rémunération fondée sur la tâche à une rémunération fondée sur les compétences, les questions de paie et d'ancienneté sont particulièrement complexes. Les primes furent éliminées de la rémunération, dans les deux cas où il y en avait, avant l'introduction du nouveau mode de rémunération. L'inflexibilité qu'ils causent semblent être un obstacle majeure l'introduction efficace de pratiques innovatrices de travail. Nous croyons qu'il est improbable qu'une RBC puisse coexister avec un système de primes. D'un autre côté, le cas 2 nous enseigne qu'il est possible d'introduire une RBC avec des modifications minimales à une structure d'emploi fragmentée et, en fait, d'utiliser telle structure comme base d'un régime de RBC.

Notre recherche démontre également que les droits d'ancienneté n'ont pas à être affaiblis pour introduire une RBC et même qu'ils peuvent être renforcés. La charnière des droits d'ancienneté repose sur le principe que les occasions de formation soient allouées par ancienneté. Si les plus anciens sont formés en premier, ils développeront les premiers les qualifications requises pour une flexibilité accrue et, ainsi, ils pourront supplanter avec succès en cas de mise à pied. Les employeurs agréeront à de plus forts droits d'ancienneté dans la mesure où ils savent que les travailleurs les plus anciens sont qualifiés pour accomplir le travail disponible.

D'une part, les cas étudiés illustrent la flexibilité du concept de RBC comme le prouve son habileté à contourner les problèmes créés par une structure d'emploi fragmentée et par l'ancienneté. D'un autre côté, ces cas démontrent l'élasticité du système traditionnel de RST et des pratiques syndicales, telles les classifications d'emplois complexes et les droits acquis d'ancienneté, comme le démontre leur apparente capacité à bien s'adapter dans le contexte d'un système de rémunération selon les compétences.

# *From Job-Based Pay to Skill-Based Pay in Unionized Establishments*

## *A Three-Plant Comparative Analysis*

KENNETH MERICLE  
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*Analyzing the experiences of three unionized manufacturing firms in North America, this paper examines two relatively unexplored issues in the previous literature: skill-based pay in unionized organizations and the transition from job-based pay (JBP) to skill-based pay (SBP). The three cases showed substantial variety, particularly in the areas of practical details of SBP and the work system in which SBP operates. The cases show that SBP can be successfully designed and implemented in older unionized workplaces with long-standing Tayloristic pay practices and strong contract language. Specifically, it was found that SBP can be introduced even where numerous job classifications are retained and that seniority rights are not inconsistent with an effective SBP system.*

Skill-based pay (SBP) is a rapidly spreading pay innovation that compensates for the range, depth and types of employee skills, rather than for the jobs employees perform. A recent study of the prevalence of SBP reported that more than half of the Fortune 1000 manufacturing and service companies in the U.S. were using SBP to compensate at least some of their employees and were expecting increased usage of SBP in their companies in the next two years (Lawler, Mohrman and Ledford 1992).

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Despite the rising interest in SBP, the existing academic literature is surprisingly thin. Although several studies have surveyed the prevalence and basic characteristics of SBP plans (e.g., Gupta et al. 1986; Jenkins et al. 1992; Lawler, Ledford and Chang 1993; Ledford 1991; O'Dell and McAdams 1987), only two studies have examined empirically the effects of SBP on organizational performance (Murray and Gerhart 1998; Parent and Weber 1994). Indeed, many potentially answerable questions on SBP remain unexplored.

This paper documents and examines the experiences of three unionized manufacturing firms in North America that have recently introduced SBP by transforming previous JBP systems. The paper will focus on two relatively unexplored issues in the previous literature: (1) Can a SBP system be effective in older unionized organizations? and (2) Can a SBP system be effective in organizations with a long-standing traditional job-based pay system? In the following section, the research issues will be discussed, followed by a brief description of the three cases. Then, a detailed analysis of the cases in a comparative perspective will be presented, followed by some concluding remarks.

### *RESEARCH ISSUES: TAYLORISM, JOB CONTROL UNIONISM, AND SBP*

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Taylorism (or Scientific Management) has strongly influenced job design and pay structures, as well as the philosophy of unionism, in North America. The strong role of seniority in allocating employment opportunities, union involvement in defining acceptable work loads and earnings opportunities, and union efforts to establish equitable relationships between base wage rates are all based on Tayloristic principles (Mericle 1993; O'Grady 1995).

In recent years, however, many firms appear ready to abandon Tayloristic pay practices as indicated by their demands for fewer classifications, truncated pay structures, termination of individual incentive pay systems, and introduction of new pay systems like gainsharing and SBP (Appelbaum and Batt 1994; Kochan and Osterman 1994; O'Grady 1995; Osterman 1994). These workplace innovations, including SBP, also entail conflicts with job control unionism. In particular, the tension between SBP and job control unionism is salient (1) in older unionized organizations (2) with a long-standing traditional JBP system. Interestingly, there are contrasting views on both issues.

#### *SBP in Older Unionized Organizations*

It has been widely assumed that SBP does not function as well in unionized organizations as it does in nonunion organizations (e.g., Jenkins

and Gupta 1985; Lawler 1981; Lawler and Olson 1977; Poza and Markus 1980; Walton 1979, 1982). Because SBP violates many of the principles of traditional collective bargaining, such as job assignments, jurisdictional boundaries, and seniority rights (Gupta et al. 1986), these conflicts can limit the adoption of workplace innovations such as SBP.

One group of scholars, however, argues that unions and SBP are not entirely incompatible (BNA 1988; Curington, Gupta, and Jenkins 1986; Krajci 1990; School for Workers 1995; Tosi and Tosi 1986). First of all, these authors argue that SBP can and does help unions achieve traditional objectives, such as job security and higher wage rates. That is, the improved productivity and lower cost structure due to SBP reduce employers' propensity to contract out bargaining unit work. Also, in unionized plants, agreements must be worked out to specify where seniority will continue to apply.

Indeed, many of the best known examples of SBP plans are in unionized establishments, such as General Motors, Ford Motor Co., AT&T, Corning, Maxwell House, Trico Products, Inland Bar and Structural Company, and Volvo (Gupta et al. 1986; Krajci 1990; U.S. Department of Labor 1992). A recent survey suggests that an increasing number of unionized organizations are operating SBP plans. For example, Curington, Gupta, and Jenkins, in their 1985 survey, found that 3 out of 29 organizations with SBP experience (10.3%) were unionized (Curington, Gupta, and Jenkins 1986). In the 1991 survey, Jenkins et al. (1992) found that 11% of 97 SBP plans identified by the survey were unionized. In their 1995 survey, Gramm and Schnell (1996) found that 32.9% of 85 manufacturing business units in Alabama adopting SBP had a workforce covered by a collective bargaining agreement.<sup>1</sup> Towers Perrin studied 80 SBP plans at 27 manufacturing and service companies around the country, and found that 31% of the programs operated in unionized environments (Towers Perrin n.d.).<sup>2</sup>

### *Replacing a Long-standing JBP System with SBP*

The next issue is whether a SBP system can be effective in organizations with a long-standing, traditional JBP system. Again, there are competing views on this issue. Skeptics argue that SBP has a greater potential in

1. In the probit regression predicting SBP adoption, the independent variable, collective bargaining coverage, showed a negative but insignificant sign.
2. In studies comparing SBP effectiveness in unionized and nonunion environments, Gupta et al. (1986) found little difference when comparing the overall success experienced by SBP plans in unionized settings (2 plants) with those in nonunion settings (17 plants). In both types of firms, the SBP systems were reported to be at least moderately successful. Also, Towers Perrin (n.d.) found that SBP plans in unionized organizations appeared as successful as those in nonunion environments.

"start-up" plants than in existing plants, since the new organization does not have to overcome problems of culture, tradition, and previous JBP systems. Thus, it is argued that SBP typically has been used in new plants for these reasons (BNA 1988; Jenkins and Gupta 1985; Walton 1982).

However, others argue that newness also creates a few problems for the SBP plan (e.g., Ledford, Tyler, and Dixey 1991; School for Workers 1995). Without previous records and actual production experience, it is difficult to determine the appropriate skill blocks and to develop needed training and certification materials. The intense pressures and stress of start-up also sapped energy for developing a new and complex pay plan such as SBP and making it work.

Available evidence tends to suggest that SBP can be successful in organizations with JBP experience as well as in "start-up" organizations. In the 1985 survey by Gupta, Schweizer, and Jenkins (1987), about 75% of the SBP plans out of 20 plans were installed in start-up plants; the remainder (25%) were changed from a traditional JBP to an SBP plan. A more recent survey conducted by Jenkins et al. (1992) even revealed that most current users of SBP plans are organizations that have previous experience with JBP. The survey indicates that, on average, organizations using SBP are ten years old, and one-third of the 97 SBP plans identified by the survey are at least twenty years old.<sup>3</sup>

The above discussion shows that SBP is not incompatible with traditional job control unionism or JBP, although SBP may have unique problems in existing and/or unionized organizations. The existing literature also implies that, although the popularity of SBP may be a recent phenomenon, users of SBP are by no means restricted to newly established or nonunion organizations.

The challenges in successfully implementing SBP are perhaps greater in unionized facilities with a history of JBP practices than in newly established nonunion ("green field") organizations. In spite of these challenges, the important issues related to the conflicts between SBP and job control unionism and the transition from JBP to SBP have not been systematically investigated. This lack of research on SBP in the existing, unionized sector stands in sharp contrast with recent union statements and government efforts supporting workplace innovations, including innovative pay systems (e.g., AFL-CIO 1994; IAM 1994; U.S. Department of Labor 1994).

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3. In addition, Gupta, Schweizer, and Jenkins (1987) compared "start-up" plants with the change-over plants along several outcomes — absenteeism and turnover rates, quality of product, staffing levels, and employee attitudes, as well as the overall success of the plan. Interestingly, on none of these dimensions did the start-up plants appear significantly different from the change-over plants.

This paper examines the process and outcomes when management and union leadership attempt to develop innovative SBP systems in this challenging environment. In the paper, we will describe three cases focusing on the following issues: What barriers do the existence of the union and residues of traditional pay practices pose to innovations in pay systems? What factors affect the receptiveness of unions to both work innovations and SBP systems? How were the vested interests of hourly employees under the JBP system handled in the introduction of the SBP plan? How can union and employee input be made more effective in the design, implementation and administration of innovative SBP systems?

### OVERVIEW OF THE THREE CASES

In this section, we will briefly describe each of the three plants to provide a contextual background for this study (see Table 1). A detailed comparative analysis will follow in the next section.

#### *Case One: A Food-Processing Equipment Plant*

The plant produces various food-storing and food-processing equipment and systems (SIC code: 3556). The number of employees in the plant is approximately 650, including 180 office employees and 470 production employees. The plant has two separate bargaining units defined by product lines: one is represented by the United Steelworkers of America (USWA), the other by the International Association of Machinists (IAM).

The SBP systems that were negotiated involved a radical restructuring of existing jobs. In the IAM unit, 40 job classifications in 9 labour grades were collapsed into 3 trades, whereas the USWA unit went from 35 job classifications in 6 labour grades to a single classification. SBP plans were established in both areas in separate negotiations with the two unions in 1991. Because of the radical nature of the job and pay restructuring, issues such as red-circling previous base rates, grandfathering current employees in the new SBP skill structure, financial incentives to train where red circle rates exceeded the new base rate, order of training, volume of training opportunities, and many others were addressed in the new systems.

This plant underwent by far the most comprehensive restructuring of the pay system of the three cases. It also represents the fullest integration of the new pay system (i.e., SBP) with a streamlined and flattened authority hierarchy. The existing hierarchy was flattened by extensive employee involvement and leaner staffing in managerial decision making, and resulted in substantial reduction in the number of managerial ranks. In particular, the number of first-line supervisors was reduced from 32 to 12 since the beginning of the restructuring efforts in 1991.

TABLE 1  
Comparison of Three Skill-Based Pay Cases

	Case 1	Case 2	Case 3
<b>Organizational Context</b>			
Products	food-processing equipment	electric brakes and clutches	washers
Number of employees	650 employees	525 employees	855 employees
Unions	USWA and IAM	USWA	USWA
<b>SBP Implementation Process</b>			
Forces driving SBP	need for versatile and flexible production system; reorganization of plant into business units and just-in-time implementation	implementation of cell manufacturing; need to replace incentive pay system	introduction of self-directed work teams; need to replace incentive system
Local union's initial attitude toward SBP	USWA: supportive IAM: mixed	supportive	supportive
Negotiating strategy	prolonged negotiation between contracts resulting in detailed letter of understanding	continuous negotiation of issues as they arise with periodic update of letter of understanding	two-tier system: joint steering committee assigns design details to design committee
Implementation strategy	fully implemented at outset	phased in as cells created	currently still in design process
Previous pay system	fragmented job-based pay; no incentives	fragmented job-based pay; with incentives	fragmented job-based pay; with incentives

TABLE 1 (Continued)

	Case 1	Case 2	Case 3
Consolidation of job classifications	yes	no	yes
Transition from existing pay system	grandfathered at JBP rate	new base rates at 125%; lump-sum payment	new base rate at average earnings; lump-sum payment
Effects on existing seniority rights	widened seniority districts	hardly affected	N/A
Skill-Based Pay Design Features			
Employees covered by SBP	hourly employees	hourly employees in cells	hourly employees
Models of SBP	skill blocks in natural work areas (USWA); skill blocks within a trade (IAM)	skill blocks in cells	roles in self-directed work teams
Training opportunity	by seniority	by seniority	by seniority
How to maintain certified skills	rotation	rotation	rotation
Employee appeal mechanism	review committee, steering committee, and grievance procedure	grievance procedure	grievance procedure



TABLE 1 (Continued)

	<i>Case 1</i>	<i>Case 2</i>	<i>Case 3</i>
<b>Outcomes of Skill-Based Pay</b>			
Effects on firm performance	improvement in quality and delivery reliability; reductions in indirect labour; efficient staffing rework	improvement in quality and delivery reliability; reductions in indirect labour; reductions in rework	N/A
Effects on employees	improvement in pay; greater autonomy	improvement in pay; greater autonomy	N/A
Employment	increased	stable	N/A
Effects on labour-management relations	positive	positive	N/A
Major problems experienced	conflict between cells and SBP; role conflict of union officers; job attachment under the previous pay system; hold-ups	resistance from aged workforce; insufficient rotation within cells; residue of incentive system	job attachment under the previous pay system

### *Case Two: An Electric Brakes and Clutches Plant*

The plant produces electric brakes and clutches for commercial vehicles and industrial equipment (SIC code: 3621). The plant employs 385 hourly workers who are represented by the United Steelworkers of America (USWA). The SBP plan was initially implemented in July 1991 after a prolonged period of discussions and negotiations had begun in December 1989. The impetus for establishing the SBP plan arose from the company's desire to convert to cell manufacturing.<sup>4</sup>

The SBP system in this plant did not involve a radical restructuring of job classifications; rather, it was built on top of the existing 120 job classifications. The SBP system was designed to encourage cross-training and rotation between the separate classifications within the cells. The SBP system applied only to jobs located in cells and has been implemented gradually as new cells are established. The new pay system is thus linked directly to the new organization of work (cells), but it preserves and in fact is based on the building blocks (job classifications) of a fragmented Tayloristic job structure. This approach simplified SBP design and reduced resistance among existing employees to the SBP concept. This case illustrates that SBP can coexist with a Tayloristic job-based pay structure.

### *Case Three: A Washer Plant*

The plant produces home and commercial washers (SIC code: 3633). The number of employees in the plant is approximately 855, including 62 salaried employees and 793 hourly employees. The hourly employees are organized by the United Steelworkers of America (USWA). In mid-1992, a process was initiated that will ultimately restructure the entire hourly compensation system. This restructuring included the following elements: (1) termination of the existing incentive system, (2) simplification of the existing pay structure, (3) design and implementation of a plant-wide gainsharing plan, and (4) design and implementation of an SBP plan.

A stand-alone, small (55 hourly employees), die cast facility located 20 miles from the main plant was chosen as a location to pilot the intended changes. The results of the pilot program helped the parties to establish the

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4. Under cell manufacturing, all of the machinery required to produce a particular part or closely related family of parts is grouped in close proximity (frequently in a U-shaped formation) with the raw material entering one end of the cell and the finished product exiting the other end. This approach is contrasted with the traditional functional layouts in which similar machinery is grouped together and parts travel to the machinery required for each subsequent operation. In cells, workers are typically responsible for the operation of all machinery and equipment, set-ups, inspection, preventive maintenance, material handling and coordination of work (see Harvey [1994] for details of cell manufacturing).

terms and the timing of the elimination of the incentive system, consolidation of the pay structure from 103 separate hourly pay rates to 13, and installation of a plant-wide gainsharing plan in the main plant. SBP implementation was delayed as the more pressing issues of termination of incentives and implementation of gainsharing in the main plant came to the fore. Nevertheless, the SBP design committee settled on a design concept that structured SBP around roles within self-directed work teams.

Like Case 1, the restructuring of the pay system in this plant was part of a comprehensive redesign of the work process. Since SBP is still in the design stage in this plant, we will focus on the overall context which gave rise to the SBP plan, the process used in designing it, and the preliminary results of the design process.

### COMPARATIVE ANALYSIS OF CASES

In this section, we discuss the forces driving SBP, the implementation of SBP in unionized firms, the strategies used to negotiate SBP, wage issues in the transition from JBP to SBP, the design of SBP plans, seniority rights under SBP, issues and problems in the SBP plans, and the impact of SBP (see also Table 1).

#### *Forces Driving SBP*

Our cases suggest that SBP is not a primary reform but rather is introduced because of more fundamental changes in the underlying production systems. The forces driving SBP implementation were similar in the three cases: each company had embarked on a comprehensive modernization effort that involved the introduction of various workplace innovations and each concluded that its existing JBP system was no longer adequate. The traditional JBP practices, characterized by a proliferation of classifications and inflexibility, were perceived to be in conflict with flexibility, quality, delivery responsiveness and effective group performance. The SBP systems were adopted to promote workforce versatility and skill acquisition in this changing environment.

In Case 1 the specific innovations involved the restructuring of the plant into business units and the comprehensive application of just-in-time manufacturing principles. In Case 2 the principal focus was on cellularization. And in Case 3 the main impetus came from a desire to establish self-directed teams. Many additional changes (e.g., employee involvement, total quality management, statistical process control training, activity-based accounting) accompanied the restructuring efforts in the three cases.

In all three cases the work system innovations required hourly employees to assume broader roles in the production process. In part, this involved the transfer of indirect functions such as material handling, inspection, preventive maintenance and coordination of work group activities to direct labour classifications; and, in part, it involved an expansion in the range of production activities such as operating new machines or assuming new functions in cells or teams.

The new work systems demanded flexibility, whereas the fragmentation and narrow functional specialization that characterized JBP, especially when combined with incentive pay as in Cases 2 and 3, encouraged inflexibility. The new work systems emphasized group performance, whereas JBP focused workers' attention on their individual jobs and, in the case of the incentive systems, specifically on parts production. The new work systems required upskilling and high involvement, whereas traditional pay practices emphasized work simplification, deskilling, and low involvement. In all three cases, interest in SBP resulted from the inability of traditional systems to meet new business needs and changing environments.<sup>5</sup>

### *Implementation of SBP in Unionized Firms*

It is widely assumed that unions oppose SBP because it may challenge contractual protection based on narrow job classifications and seniority (e.g., IAM 1988; Kochan, Katz and Mower 1984). However, our case studies illustrated that unions can be receptive to workplace innovations and pay system reform. The local union leadership in the three plants may have slowed the introduction of SBP,<sup>6</sup> because of their concerns about the transition from JBP to SBP. However, in all three cases they accepted the need for the new systems and focused their attention on shaping the systems and solving design problems. In the two instances where SBP systems have been implemented (Cases 1 and 2), the unions have played an important role in the day-to-day administration of the plans.

In our cases, the following three factors appear to have shaped the attitudes of local union leaders toward both work innovations and SBP systems:

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5. In the Case 3 interviews, the Vice President of Human Resources explicitly criticized Taylorism. In the other interviews the criticism was implicit and contained in practical questions such as: How do you pay people who work in cells when you want them to assume responsibilities beyond those normally associated with their classifications and when the incentive system just doesn't make sense any more?
  6. In the Case 2 interviews, the Human Resource Manager stated that he could have implemented SBP in a nonunion plant in six months, as happened recently at a sister plant in the corporation, instead of the nearly two and a half years required at this location.

(1) external business pressures, (2) the attitudes of the international union and union staff, and (3) the attitudes and characteristics of union members.

In Case 1, the USWA local had suffered a substantial loss of membership due to the declining competitiveness of the business unit. In the late 1980s, their numbers fell from a peak of about 400 to 64 just prior to the restructuring of the plant and introduction of SBP. The union leaders believed that they had no other choice but to participate in the effort to modernize the workplace and revive the competitiveness of the business. By contrast, the leaders of the IAM local, whose business units were reasonably stable, did not initially recognize the need for changes in work systems and were suspicious of the proposed changes in the pay system. These contrasting union attitudes support Kochan and Dyer's (1976) argument that the greater the external pressure that union and management representatives are experiencing, the higher the likelihood that the parties will be motivated to consider alternative joint ventures.

Although the companies in Cases 2 and 3 were confronting tough competition in product markets, their business conditions were relatively secure. In recent years, the USWA locals in Cases 2 and 3 have not experienced significant reductions due to layoffs. Rather, the union leaders in these cases made more proactive decisions about workplace innovations and union-management cooperation. The competitive nature of product markets and rapidly changing consumer demands in these industries have dictated that companies focus on quality, product diversification and responsiveness to the market. The union leaders believed that maintaining the competitiveness of the business would be the best way to prevent possible reductions in employment and decided to participate in the innovations to protect their members' long-term job security.

Second, the different attitudes of the two international unions (USWA and IAM) at the Case 1 plant may also help explain the differences in the positions taken by their local union leaders. The USWA, at both the national and regional levels, had been strongly supportive of union-management programs. The local USWA leaders felt that the International Union supported workplace reform in general and their efforts in particular. In Cases 2 and 3, the USWA local unions also received support from the USWA at the international and regional level. In these cases, the local unions' initial receptiveness to the innovations appears to have reflected the attitudes of the national Steelworkers organization.

By contrast, in Case 1 the IAM at the international level opposed labour-management cooperation and was highly suspicious of workplace innovations. The International explicitly discouraged their locals from becoming actively involved in such programs (see IAM [1988] for example). The local IAM leaders perceived their International Union's position to be not very

helpful in their current circumstances. Their business representative focused on local imperatives and was generally perceived to be helpful by local officers in spite of the policy of the International.<sup>7</sup>

Finally, the USWA local (in Case 2) demonstrates how the features of SBP can be influenced by the composition of workforce. Since few workers have been hired in the last twenty years, this plant has an older, high-seniority labour force with an average age of about forty-seven and seniority in the twenty-five to thirty year range. When the company proposed to collapse all existing job classifications into a single classification and replace the incentive system with SBP, the initial reactions of the employees were not positive. Opposition was concentrated among older members who were accustomed to narrow job classifications and incentive opportunities. The initial resistance of older members was one important reason why the local union leaders insisted on a gradual transition to SBP by linking it to the spread of cells, on voluntary participation in cells, and on a SBP system based on existing job and pay structures.

### *Strategies for Negotiating SBP*

In all three cases, the SBP plans were negotiated outside of normal contract bargaining. In Case 1 the company submitted a proposal to its IAM unit about 15 months into a three-year labour agreement. The union agreed to discuss the company's proposal, and the parties entered into intense negotiations that ended over a year later with the ratification of a letter of understanding covering the SBP plan. The same approach was used with the USWA unit, but negotiations proceeded more smoothly and the process required only six months. Both sets of negotiations involved conventional bargaining, and both involved conventional outcomes—letters of understanding that described the SBP plans in detail.

In Case 2 the bargaining process has been and continues to be highly unconventional. The parties have engaged in a process of continuous negotiations that began in 1990 shortly after a contract had been negotiated, and has continued to the present. These ongoing discussions have covered both the introduction of cells in the plant and payment of the workers in the cells (the SBP plan).

The whole approach has been open and experimental. The parties agreed to establish a cell on a 90-day trial basis. They judged the experiment a success and began to focus on extending and institutionalizing the cellularization process. As issues related to cellularization and SBP arise, they

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7. The IAM has recently adopted a much more positive national policy on workplace innovations and is now supportive of local involvement in these efforts (IAM 1994).

are discussed, resolved and added to an evolving letter of understanding. A member of the union bargaining committee claims that the openness of the process and the evolving agreement make some members, who would prefer a contract with rules covering all contingencies, nervous.

In Case 3, a two-stage bargaining procedure was utilized: a steering committee composed of the combined union and company bargaining teams selected a design committee charged with determining the basic design and specific elements of an SBP plan. This process began with a one-year agreement negotiated in 1992 in which the company and the union established a joint labour-management steering committee, whose role was to direct a complete overhaul of the hourly compensation system and the introduction of the team concept. The SBP plan was only one element of this much larger project.

The steering committee established two design committees: one charged with designing a gainsharing plan, the other a SBP plan. A consultant was employed by the company to assist the two design committees and the steering committee. The steering committee also decided to use a remote die cast facility located 20 miles from the main plant as a site for designing pilot SBP and gainsharing plans.

In the case of gainsharing, this structure worked well. The design committee was able to conduct the pilot, utilize the results in analyzing the main plant, design the plan for the main plant and successfully sell the plan to the steering committee which formally negotiated the plan. The design committee approach was less successful in the case of SBP design where several SBP design features raised conflicts or potential conflicts with the existing collective agreement. The design committee sought advice from the steering committee which initially was preoccupied with gainsharing and the termination of the incentive system. The advice was not forthcoming, the issues were not resolved, and the design process languished.<sup>8</sup>

In the fall of 1994, SBP design was interrupted so that the newly elected union committee could increase their understanding of all of the recent changes. The design committee, however, did develop a methodology that

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8. Another factor which may have contributed to the delay of the design process involved the selection of the die cast operation as a pilot site for design. The technology and work organization of die cast was very homogenous in comparison to the main plant. Die cast had a single technology, die casting, compared to the main plant with machining, welding, painting, bench and line assembly. Likewise the die cast job structure (7 classifications) was very simple in comparison to the main plant (103 labour grades). It may well be that a SBP model that made sense in the relatively simple die cast environment could not be generalized when confronted with the complexity of the main plant. This case shows that if design concepts are piloted in certain areas or locations, it is important to periodically test emerging design concepts against the diverse realities of the plant as a whole.

will ultimately guide the design of the plan. The methodology involves defining roles within work teams and paying SBP increments for skill acquisition within and between team roles.

While bargaining new pay systems is not easy under any circumstances, the cases illustrate that SBP can be best negotiated outside of normal contract bargaining. Mid-contract negotiations worked well at Case 1 and continuous negotiations continue to work well at Case 2. The two-tier structure (steering committee/design committee) utilized at Case 3 seems to us to be less satisfactory in SBP negotiations than in gainsharing negotiations because of the complex interface between SBP details and existing contractual rights. If this approach is utilized, the design committee must have very clear operating instructions from the steering committee, especially in regard to how they are to treat existing contract languages, e.g., design the SBP plan within the constraints of the existing agreement vs. the blank page approach. Overlapping personnel and close coordination between the two committees is essential. Whatever bargaining process is utilized, the negotiations will require a substantial period of time (our cases suggest 6–18 months).

### *Wage Issues in the Transition from JBP to SBP*

Our cases illustrate how two common features of Taylorism — fragmented and hierarchical job-based pay structures and incentive pay systems — are dealt with in the transition to SBP. Fragmented and hierarchical job-based pay structures are generally thought to reinforce overspecialization and discourage skill acquisition and flexibility. Similarly, incentive pay systems are perceived to be incompatible with the new work systems that drive SBP, since incentive systems reward repetitive piece production which may conflict with inventory reduction, small batch production, quality, task diversity and other goals of new work systems (Mericle 1993).

First, the three cases provide a very interesting contrast with respect to the handling of fragmented job-based pay structures. Cases 1 and 3 involved a radical restructuring of the job-based pay structures. At Case 1, a typical Tayloristic JBP structure with 35 job classifications and 6 labour grades in the USWA unit and 40 job classifications and 9 labour grades in the IAM unit was collapsed, in the cases of the USWA, into a single classification (fabricator) and, in the case of the IAM, into three trades (maintenance, assembly, and machinist). New base rates were established: one for the Steelworkers and one for the three trades in the IAM unit (i.e., a single rate for the assembly, machinist and maintenance trade). Employees whose former earnings exceeded their new base rate were red-circled at their former base rate; those whose earnings were lower received an immediate increase.



In Case 3, the proposed SBP design for the die cast facility involved collapsing 7 existing classifications into a single classification: team member. For the bargaining unit as a whole, the union and company subsequently agreed in contract negotiations to collapse 103 labour grades into 13. A lump-sum bonus was paid to employees whose new base rates were below the base rates they had previous to the consolidation. Anyone whose new base rate was above their previous rate received an immediate increase. This intermediate step towards a flattened pay structure should make the design of a plant-wide SBP system somewhat easier when the design process is resumed.

The approach utilized in both of these cases (1 and 3) was based on the premise that the pay hierarchy based on job classifications must be eliminated or at least greatly reduced so that a hierarchy based on skill levels can be constructed. As in the termination of incentives, there are costs involved in flattening job-based pay structures: in Case 1, wage increases and maintenance of red-circled rates; in Case 3, wage increases and lump-sum payments.

In Case 2 the underlying premise is that SBP can be built on top of a fragmented and hierarchical job structure and utilized to encourage cross-training for existing classifications and rotation between classifications. In implementing SBP at Case 2, the number of existing job classifications actually increased by 8 classifications (from 112 to 120). Employees are required to get training first within their existing classifications and then progress to the next higher paid classification within the cell. This approach simplifies SBP design and reduces conflicts and the up-front cost of transition since there is no out-of-pocket expense for eliminating existing classifications. It also seems to have reduced resistance among existing employees to the SBP concept. This case illustrates that SBP can coexist with a Tayloristic job-based pay structure.

On the other hand, Cases 2 and 3 suggest that it is less likely that SBP can coexist with an incentive system. In Cases 2 and 3, preexisting incentive systems have been terminated. In Case 2, earnings under the incentive system averaged 125% with a range in performance from 70 to 200%. Incentives were phased out in two steps. Step one involved the agreement to take workers in the original pilot cell off incentive and pay them at 125% of the incentive base rate for their classifications. This process was applied to each new cell that was created. Several senior employees with high average incentive earnings bid on the cell jobs in spite of substantial losses of earnings resulting from the gap between their personal average and the 125% guarantee. The Human Resources Manager attributed this behaviour to the desire of the employees to get away from the pressure of incentives and try something new.

Step two involved the plant-wide termination of incentives, which was negotiated as part of the 1993 collective agreement. The conditions of termination included the 125% guarantee plus lump-sum payments in each of the three years of the agreement for those whose average incentive earnings exceeded 125%. In addition, former incentive workers who are in cells have an opportunity to earn substantial wage increases under the SBP system.

Termination of the incentives were somewhat less traumatic at Case 3. By and large the incentive standards had been well maintained and the dispersion of incentive earnings was less extreme than in Case 2. Also, all assembly line jobs and many jobs elsewhere in the plant were line or machine-paced, and hence earnings were not much affected by operator effort. When the incentive system was terminated, new base rates were established at average hourly earnings for classifications by department. The buyout also coincided with general wage increases and the initiation of gainsharing. The net result of the guarantee, the wage increases and gainsharing bonus, is that very few, if any, former incentive workers will lose money, even though SBP has not yet been implemented in the plant.

### *Designing the SBP Plans*

#### *Coverage of SBP*

The SBP plans in these cases cover only the hourly employees, excluding all salaried employees, both exempt and nonexempt. The three plans reflect the findings from recent surveys that hourly employees are most likely to be covered by SBP (e.g., Gupta et al. 1986; Jenkins et al. 1992). However, there is an important difference between Cases 1 and 2. In Case 1 all hourly employees are covered by the SBP plan, whereas in Case 2 the SBP system applies only to jobs located in cells and has been implemented gradually as new cells are established.

#### *Different Models of SBP*

There are many different ways to classify, organize and arrange the skills utilized in an organization. Although Bunning (1992) presented six basic models of structuring skills in SBP, our three cases show that more variations are possible, reflecting the preferences of workers as articulated by their unions and the distinctive needs and circumstances of each organization. Our cases reveal four different models for organizing skills: skill blocks based on natural work areas (Case 1-USWA), skill blocks based on progression within a trade (Case 1-IAM), skill blocks based on jobs within a cell

(Case 2) and progression within and between work roles in self-directed work teams (Case 3).

In Case 1, skills within the tank business unit (USWA) are classified into six distinctive skill blocks based on natural work areas: fabrication 1, fabrication 2, support, dome, assembly, and machining. Within each skill block, there are four skill levels with a specified progression from entry level to the most complex jobs. In Case 1, an employee must learn all skills in their home block before moving to another skill block.

In Case 1, skills within the IAM unit are classified into three trades: maintenance, assembly, and machining. Skill blocks in each trade are based on progression from entry level (e.g., utility maintenance in the maintenance trade) to the highest level (e.g., troubleshooting in the maintenance trade). Employees move from entry level to higher level skills within each trade.

In Case 2, the SBP pay increments are tied to mastering job classifications within cells. A cell is usually composed of several (three to seven) jobs with different skills, e.g., assembly, painting, manual machining, and two-axis machining. Within a cell, employees learn the different skills in a particular sequence based on the complexity of the work as reflected in the base rates of the different classifications. When an employee has mastered all classifications within the cell they qualify as a "cell member" and earn an additional pay increment above the rate of the top classification.

In Case 3, pay increments are tied to progression within team roles and to mastery of new roles. Roles within the self-directed work teams, are defined more broadly than jobs. Each role has a sequential list of skills arranged in the order of difficulty. For example, in the self-directed work team, in the die cast facility, three roles and their constituent skills were defined in the following way: role 1 (team member) is composed of four skills (die casting, material handling, inspection and team skills), role 2 (specialist) included three skills (quality assurance, process improvement, and team support), and role 3 (specialist) included two skills (maintenance and tooling). Within each role, employees are expected to progress from the less difficult skills to more complex ones. Employees who are fully competent in role 1 can move to either role 2 or role 3. Pay levels progress from the entry level of role 1 to the highest level in either role 2 or role 3.

It seems relatively easy to define skill levels/blocks in the "natural work areas" and "job classification within cells" models. The "skill in a trade" and "roles in work teams" models are more complex and require much more up-front work in specifying skill levels/blocks. All four of these models seem workable, although we have no basis for predicting which designs are likely to be most effective in the long run. This may be a fruitful area for future research.

*Training, Qualification and Employee Appeals Procedures*

In all three cases, the order of training is determined by seniority. Most skill acquisition is accomplished through on-the-job training. Sometimes videotapes and classroom teaching are used to supplement on-the-job training (in Case 2). In the case of the trades (Case 1-IAM) in which it takes a long time to master skills, employees can learn specific skills in technical colleges, with tuition reimbursed by the company.

Various qualifying methods were identified in the cases, including skill demonstrations, oral questioning, written tests and checklists. In all three cases, qualifying committees composed of supervisors and union representatives and/or co-workers (trainers) determine whether an employee is qualified.

None of the cases had a re-qualification procedure to make sure that skills are maintained. Instead, rotational procedures provide employees with the opportunity to maintain their skills. Every employee is expected to rotate regularly through jobs or skills for which they are qualified; however, all respondents in all locations agreed that the current levels of rotation are inadequate.

Case 2 provides a typical example of a rotation problem. Employees are willing to rotate in the cells during their training period, but once cell members master all skills within the cell, they have a tendency to stay in the jobs where they are most proficient, usually their original classification. Supervisors do not mandate rotation because they are concerned about sub-optimal production resulting from employees' rotating into jobs where they are less proficient. Thus, there is some resistance to rotation both among employees and supervisors. The inherent danger of skill atrophy was recognized by both union and management respondents who are currently considering implementing a mandatory rotation procedure within the cells.

All three SBP plans have employee appeals procedures for disputes over the administration of the plan. For example, if trainees feel that they did not qualify because of inadequate training or unfair qualifying procedures, they can appeal the decision. In Cases 2 and 3, if employees have complaints about the administration of the SBP plan, they can file a grievance.<sup>9</sup>

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9. In Case 1, employees have to appeal to the review committee before they file a grievance. If they are not satisfied with the decision of the review committee, they can appeal to the steering committee. Following the decision of the steering committee, a grievance can be filed as a final step. Since the chairperson of the union grievance committee also serves as a member of the SBP steering committee, he or she will face an awkward role conflict if an employee does not accept the decision of the steering committee and files a grievance. This type of role conflict can happen in the case of any jointly administered labour-management program, where union officers not only participate in managerial decision making but also

### *Seniority Rights Under SBP*

It is frequently asserted that SBP may weaken seniority rights in regard to access to overtime, shift assignments, layoff procedures and promotional opportunities (Curington, Gupta and Jenkins 1986; IAM 1988; Tosi and Tosi 1986). Contrary to this view, our cases show that SBP plans can not only incorporate seniority principles without much difficulty, but can actually strengthen some seniority rights. The main mechanisms by which seniority can be strengthened under SBP include: (1) the use of seniority to control access to training and (2) the establishment of broader seniority districts.

In both of our cases (1 and 2) in which SBP has been implemented, access to training opportunities to upgrade skills and earn SBP increments is determined by seniority. Consequently, senior employees have the first chance to train and qualify for higher rates of pay.

Case 1 also illustrates the potential for strengthening seniority rights by widening seniority districts. Under the previous JBP system, in the event of a layoff senior employees in the USWA unit could bump junior employees only from the jobs that the senior employees could perform (for example, the jobs he/she had prior experience with). Under SBP there is only one classification and senior employees can bump anywhere in the bargaining unit. In the IAM unit, bumping rights were previously limited to bumps within the employee's trade, whereas under SBP senior workers can now move to any trade in the bargaining unit.

In Case 1, the labour agreement under the SBP system guarantees stronger seniority rights in shift assignment than before. Before the implementation of the SBP plan, shift assignment was decided on the basis of seniority within the job classification. According to the current labour agreement under the SBP plan, employees can change their shifts every six months by seniority among the jobs which he/she is qualified. Thus, senior employees have more freedom in choosing shifts under SBP than under the previous pay system.<sup>10</sup>

There are two reasons why the company could agree to these wider seniority districts: first, the broadly defined job classifications and multi-skilling of employees under the SBP plan make the employees more versatile than when they held narrowly defined job classifications under the JBP

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represent their members' interests. The problem can be avoided if the decision of the steering committee is final and binding and grievances are reserved for circumstances where the steering committee fails to reach agreement.

10. There has been no significant change in seniority rights in regard to overtime distribution. Overtime opportunities have been distributed by seniority among employees within their department or natural work area.

system; second, senior employees are likely to have attained the highest skill levels under the SBP plan because they are given preferential access to training.

In Case 2, the SBP plan and cellularization do not significantly affect the existing seniority rights in overtime, shift preference and layoff procedure, because the SBP plan was incorporated into the existing job structure maintaining all previous job classifications. Shift assignment and overtime distribution are still decided by seniority among employees within cells. The only difference under the SBP plan is that in a layoff situation a senior employee who bumps a junior employee in a cell has to demonstrate his/her ability to perform the job. For example, employees can exercise their seniority by bumping a cell employee with less seniority assuming that they can perform the affected employee's primary job in a cell with minimal familiarization. The senior employee has to demonstrate satisfactory progress on the job after twenty working days. However, it is very rare that the senior employees cannot demonstrate competency within the given period. In sum, these cases show that, contrary to the common belief, SBP does not always weaken vested seniority rights in overtime, shift assignment and layoff procedures.

### *Issues and Problems in the SBP Plans*

The introduction of SBP in unionized organizations raises problems and issues related to the transition from JBP to SBP systems. In this section, we discuss three potential issues that have not been dealt with in previous sections.

#### *Residues from JBP*

Previous literature suggests that the implementation of SBP may be inhibited because of pre-existing pay systems, especially job attachment and incentive opportunities (e.g., *Wall Street Journal* 1/17/1985; Kochan, Katz and Mower 1984). We observed such problems, particularly in the early stages of SBP implementation, but also as a more persistent problem related to the issue of rotation. Nevertheless, our cases illustrate that these problems do not have to be a serious impediment to the implementation of SBP.

In all three cases, job attachment was identified as a problem in the early stage of SBP implementation. Some employees were reported to be reluctant to accept the consolidation of pay structures (in Cases 1 and 3) and the termination of incentive systems (in Cases 2 and 3). We suspect that part of the resistance may have been due to perceived or real earnings loss associated with the termination of the old systems and introduction of SBP. Resistance was also due to the sense of ownership of particular

equipment or work areas that develops under JBP. This tendency may be partially responsible for the continuing reluctance to rotate. Our respondents report that employee attitudes toward new pay systems have gradually improved. Presumably this is the result of accumulated financial benefits and increased exposure due to training that result from SBP, as well as to the more democratic work environment that accompanies workplace reforms.

### *Conflicts Between Production Requirements and Training*

In Cases 1 and 2, there have been relatively few conflicts between production requirements and training opportunities, despite booming business in both plants. When production needs are urgent, supervisors sometimes delay or interrupt training in order to meet delivery dates. The labour agreements in Case 1 anticipated these tensions and provide for a guarantee that a minimum of 5% of the labour force will be involved in training at any given time. The Human Resources Manager reported that actual training levels exceeded 5% in all business units and that some supervisors allow their work groups to train as much as they want as long as production schedules are met.

In Case 2, most employees have moved rapidly to the maximum rate (the "cell member" rate), so access to training has not been a serious issue. Although the union was concerned earlier in the program about delays in qualifying demonstrations, the issue was settled in the continuous negotiations by developing a request form and a procedure under which employees are automatically paid the SBP increment if they have to wait more than 30 days for a competency demonstration. If they are subsequently unsuccessful in the demonstration, their pay is lowered to its former level. The existence of the procedure has greatly reduced the problem.

### *Top-outs and Hold-ups*

Previous literature has suggested that topping-out (e.g., employees have learned all possible skills for which they are eligible) can lead to discontent because employees have become accustomed to learning, growing and receiving higher pay under SBP (e.g., Jenkins and Gupta 1985; Lawler 1990, 1991; Lawler and Ledford 1985). Jenkins and Gupta (1985) estimated that it normally takes a minimum of two to three years before an employee tops out.

While topping-out has become a nearly universal experience in the Case 2 plant, it is not considered to be a very serious problem. The strong monetary incentives of SBP have led most employees in cells to improve their skill levels to the limits allowed by the plan. Currently, 98% of employees covered

by SBP have mastered all of the skills within their cell. Nevertheless, topping-out does not seem to be a serious source of complaints in this plant. It will be interesting to see if topping-out becomes an issue in future negotiations. The existence of a gainsharing program in this plant (in place since early 1994), provides another opportunity for employees to enhance their earnings. In the future, gainsharing may be viewed as a complementary pay strategy to counter the topping-out problem in SBP.

In typical SBP plans, hold-ups are likely to occur when a worker is ready for training, but there are no openings available (e.g., Jenkins and Gupta 1985; Lawler 1990, 1991). The hold-up problem is evident in Case 1. Since the SBP plan distributes the training opportunities by seniority, junior employees have to wait longer for their training rotation. In certain areas it takes a year before an employee has the opportunity to train. Training has been delayed in some business units because review committees have been slow to document skill levels and qualifying procedures. Since the SBP plan does not provide any special hold-up rates to compensate the employees for the time they are held back, some employees, especially junior employees, have complained about the insufficient opportunities to rotate and be trained. Currently, the company and the unions are seeking ways to deal with the hold-up problem in the SBP plan.

### *Tensions between SBP and Other Workplace Innovations*

There are some interesting tensions between the SBP structure and other workplace innovations involving the IAM in Case 1. Conflict between SBP and other workplace innovations centered on cell manufacturing practices. In this plant the cellularization process began just before the introduction of the SBP plan; however, unlike Case 2, the SBP program was not structured around cells. When the SBP plan required cell members to rotate in order to provide training opportunities for other workers, many cell members did not want to vacate their positions. These employees had been encouraged to take ownership of the cells during the design phase, and they did exactly that, contributing heavily to cell layout and operating procedures. In many cases they developed a very strong sense of identification with the cell, rather than with their trade as envisioned under the SBP plan. In conflicts like this the trade-offs are relatively clear: if the SBP structure is coterminous with cells, learning and earning opportunities will be truncated. If the SBP structure is based on trades or some other broad organizing principle, there will be potential conflict between SBP and other work restructuring innovations.

### *The Impact of SBP*

It is very difficult to draw definitive conclusions about the impact of SBP on firm performance and worker and union welfare from these cases. SBP



is so interwoven with other workplace innovations that it is virtually impossible to isolate its independent impact from those of other innovations. Taken as a package, our evidence suggests that SBP and associated workplace innovations have had a positive impact on firm performance. The discussion in this section covers the two cases (1 and 2) that have been implemented.

### *SBP and Firm Performance*

Previous literature suggests that SBP can have various positive impacts on firm performance, for example, higher productivity due to skill acquisition and flexibility in job assignments, lean staffing, cost reduction, improved quality, and more reliable delivery (e.g., Alster 1989; Boyett and Conn 1988; BNA 1988; Feuer 1987; Gupta et al. 1986; Jenkins et al. 1992; Jenkins and Gupta 1985; Lawler 1981, 1990; Lawler and Ledford 1985; Ledford 1991). These cases provide supporting evidence for the above propositions.

In Case 1, the company reports the following gains attributable, at least in part, to SBP: improvement in on-time delivery from the 20–30% level in the mid-1980s to about 80% in 1994; fewer interruptions in production due to staffing bottlenecks; greater employee involvement in company efforts to improve production systems; greater employee appreciation of the importance of quality in satisfying internal and external customers; substantial reduction in rework; a substantial reduction in the number of first-line supervisors from thirty to twelve and some reductions in other management ranks; and a substantial reduction in indirect labour, especially material handling.

In Case 2 the company reports the following gains attributable to cellularization and SBP: improvement in on-time delivery; a substantial improvement in overall product quality; a substantial reduction in rework; and a reduction in indirect labour.

Overall, it is obvious that SBP and other workplace innovations had a stronger positive impact on firm performance in Case 1 than in Case 2. While one may suspect that this difference in outcomes might be attributed to the different approaches taken in the two cases (e.g., radical restructuring of the Tayloristic practices in Case 1 and the coexistence of numerous job classifications and SBP in Case 2), it is certainly premature to draw any conclusions at this stage. Rather, this issue should be regarded as an issue for more rigorous future research.

### *SBP and Individual Employees*

One of the most obvious benefits of SBP for individual employees is enhanced earnings opportunity and progression in the SBP structure. In Case

1 no one was hurt in the introduction of SBP. All employees received the higher of the new SBP base rate or their current red-circled wage. Many employees were grandfathered into the system at levels above the minimum SBP base rate in recognition of previously accumulated skill. In Case 2, 98% of employees have reached the maximum rate in their cells. This means that virtually everyone in the cells is earning between \$.50 and about \$2.00 per hour more than their 125% guarantee. Some former high earners under the incentive system may still be losing money, but they are few in number.

The benefits associated with employee involvement, though less tangible, are nevertheless quite real. Decentralization of decision making and self-management practices make employees responsible for more day-to-day decisions about production. For example, in Case 1, employee teams make decisions on hiring new employees, overtime distribution, vacation schedules and day-to-day staffing. Employees also have access to the company's financial records, including monthly sales and profit-loss figures. Our respondents believed that most employees appreciated the greater autonomy and responsibility the new work and pay systems provided. Finally, the SBP plans have provided opportunities for individual growth and development which probably enhance feelings of self-worth.

### *SBP and Unions*

The SBP plans have performed well when measured against traditional union concerns. Employment has increased or remained stable as follows:

- a. Case 1-USWA: from 64 prior to the introduction of SBP in early 1991 to 130 in mid-1994;
- b. Case 1-IAM: from 280 in early 1991 to 340 in mid-1994; and
- c. Case 2: employment remained stable (about 380 hourly employees) since 1991.

While it may be questionable to attribute employment growth (or stability) entirely to the SBP plans and their related workplace reforms, especially in light of an improving economy during this time period,<sup>11</sup> we can certainly argue that they helped to improve the competitiveness of the two companies. For example, in Case 1 the authors found several examples of work that had been subcontracted and was brought back into the plant because of the improved cost structure and increased control over quality and delivery.

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11. Implementing these plan was probably much easier in the current economic climate than would have been the case if the plans had been introduced and negotiated during an economic downturn.

The SBP plans have also helped improve overall labour-management relationships. Continuous negotiations at Case 2 have helped the parties to build trust, which serves as a foundation for a strong problem-solving relationship. At Case 1 the unions are actively involved in the day-to-day administration of the plans through the very significant role played by the areas committees and the oversight role of the steering committees. This day-to-day work with management has had the same positive effect on the overall labour-management relationship as in Case 2.

The number of grievances has decreased dramatically (in Cases 1 and 2) and almost all grievances have been settled in the early steps of the procedure without resort to arbitration. In Case 1, the number of grievances has been reduced from 28 in 1992 to 5 in 1994. The number of grievances also declined at Case 2, from about 250 grievances per year in the mid-1980's to thirteen in 1993. The companies and unions in both cases tried mutual-gains bargaining techniques in their last contract negotiations, which were considered in both instances, and by all parties, to be successful.

### CONCLUSION

Interestingly, the research uncovered substantial variety, even across only three cases. The variety is especially noteworthy in the areas of (1) the practical details of SBP and (2) the work system in which SBP operates.

First, the cases show that there are many different ways to arrange the skills under SBP. Each case in the present study utilized a different model of structuring skills: skill blocks based on natural work areas (Case 1-USWA); skill blocks based on progression within a trade (Case 1-IAM); skill blocks based on jobs within a cell (Case 2); and progression within and between work roles in self-directed work teams (Case 3). The choice of a particular model seems to reflect worker (and/or union) preference as well as the peculiar situations of each organization.

Second, and more important, Cases 1 and 2 illustrate contrasting approaches to the restructuring of existing job structure. In some sense, Case 1 can be considered as a radical approach, whereas Case 2 may be called a gradual approach. In Case 1 the restructuring of the pay system was accompanied by a radical restructuring of existing job classifications. Forty job classifications in nine labour grades were collapsed into three trades in the IAM unit, whereas the USWA unit reduced thirty-five job classifications to six labour grades within a single classification. On the other hand, SBP in Case 2 was not accompanied by restructuring of job classifications. Indeed, the SBP system was intended to coexist with the 120 existing job classifications. Case 2 is a unique experiment in the sense that SBP can be compatible with Tayloristic job structure.

From this variety and the common features of the three cases, one can draw the following conclusions. First, the cases clearly show that SBP can be successfully designed and implemented in older unionized workplaces with long-standing Tayloristic pay practices and strong contract language. Our cases suggest that the union leadership must understand and accept the logic of the underlying workplace reforms and the linkage between the reforms and proposed changes in the pay system. If buy-in occurs at this level, it is possible to work out the complex details of modifying existing practices and introducing innovative systems. Initial training, plant visits, reading, and consultations aimed at increasing the level of understanding must be viewed as an essential part of the process. It is hard to imagine management and the union successfully wading through the quagmire of vested interests, existing practices and general fear of change unless there is a joint understanding of and a commitment to the new work systems.

The unions played basic roles in the day-to-day administration of the plans. It is important to integrate the role of the union in SBP administration with its role in the underlying work system reforms. This point is illustrated by Case 1 where the area review committee has responsibilities both for SBP administration and additional responsibilities related to self-directed work teams.

Second, in the transition from JBP to SBP, pay issues and seniority issues are particularly complex. Incentives were terminated in both cases where they existed prior to SBP introduction. The inflexibility caused by incentive systems seems to be a major barrier to successful introduction of innovative work practices. We believe that it is unlikely that SBP can coexist with an incentive system. On the other hand, Case 2 indicates that it is feasible to introduce SBP with minimal modifications to a fragmented job structure and in fact to use the fragmented structure as the foundation of the SBP plan.

Third, our research also indicates that seniority rights need not be weakened by the introduction of SBP but can in fact be strengthened. The linchpin of stronger seniority rights lies in the principle that training opportunities be allocated by seniority. If senior workers can train first, they will be the first to develop the skills required for increased flexibility, which in turn means that they will be more likely to be able to bump successfully in the event of layoffs. If the employer knows that senior workers are likely to be qualified to do available work, they are more likely to agree to stronger seniority rights.

On the one hand, the cases illustrate the flexibility of the SBP concept, as illustrated by its ability to subsume the fragmented job structure and seniority principles. On the other hand, they demonstrate the resiliency of residues of the traditional JBP system and union practices, such as complex

job classifications and vested seniority rights, as displayed in their apparent ability to thrive in the context of SBP.

Finally, in a practical sense, it is difficult to justify SBP on the basis of short-run cost-benefit analysis, especially in unionized companies. The costs are real and up-front. They are generally higher when a union is present, because the union will normally have negotiated significant rights under the previous pay system, and will expect these rights to be purchased back by the employer. By contrast the benefits of SBP, which can result from the profitable deployment of the upgraded skills, are generally intangible and long-term. While SBP has great potential as a compensation system, especially when combined with other work system reforms, it is also fraught with uncertainty and risk. Successful implementation requires an effective design, but it also requires ongoing cooperation between the union and management to solve problems and realize the potential opportunities of the system.

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## RÉSUMÉ

### La rémunération selon la tâche versus la rémunération selon les compétences : une comparaison de trois usines

La rémunération basée sur les compétences (RBC) est une innovation qui s'étend rapidement et qui vise à payer les individus en fonction des qualifications qu'ils possèdent et non en fonction de leur performance. Malgré l'intérêt croissant envers la RBC, les écrits scientifiques sur le sujet sont plutôt rares. En particulier, il y a deux sujets importants qui n'ont pas

été touchés, ils concernent : (1) la conception et l'implantation de la RBC dans les organisations syndiquées, et (2) la transition d'une rémunération selon la tâche à une rémunération selon les compétences. La présente étude examine l'expérience de trois entreprises manufacturières syndiquées en Amérique du Nord qui ont récemment implanté une RBC en transformant leur ancien système de rémunération selon la tâche (RST).

Ces cas démontrent clairement qu'il est possible de concevoir et d'implanter avec succès une RBC dans des lieux de travail syndiqués caractérisés par une longue tradition de rémunération tayloriste et par une convention collective serrée. Ces cas nous enseignent que les leaders syndicaux doivent comprendre et accepter la logique des réformes sous-jacentes des lieux de travail et le lien entre ces réformes et les changements proposés dans le système de rémunération. S'il y a acceptation à ce niveau, il est alors possible de s'entendre sur les détails complexes de la modification des pratiques existantes et de l'introduction de systèmes innovateurs. Il est difficile de s'imaginer patrons et syndicats venir à bout de la complexité des droits acquis, des pratiques existantes et de la peur du changement sans une compréhension et un engagement mutuels envers les nouveaux systèmes.

Les syndicats ont joué un rôle de premier plan dans l'administration quotidienne des régimes. Il est important d'intégrer le rôle des syndicats dans l'administration d'une RBC et dans les réformes du système de travail. Cela est illustré dans le cas I où le comité mixte est responsable tant pour l'administration de la RBC que pour les équipes autogérées de travail.

Dans la transition d'une rémunération fondée sur la tâche à une rémunération fondée sur les compétences, les questions de paie et d'ancienneté sont particulièrement complexes. Les primes furent éliminées de la rémunération, dans les deux cas où il y en avait, avant l'introduction du nouveau mode de rémunération. L'inflexibilité qu'ils causent semblent être un obstacle majeur à l'introduction efficace de pratiques innovatrices de travail. Nous croyons qu'il est improbable qu'une RBC puisse coexister avec un système de primes. D'un autre côté, le cas 2 nous enseigne qu'il est possible d'introduire une RBC avec des modifications minimales à une structure d'emploi fragmentée et, en fait, d'utiliser telle structure comme base d'un régime de RBC.

Notre recherche démontre également que les droits d'ancienneté n'ont pas à être affaiblis pour introduire une RBC et même qu'ils peuvent être renforcés. La charnière des droits d'ancienneté repose sur le principe que les occasions de formation soient allouées par ancienneté. Si les plus anciens sont formés en premier, ils développeront les premières qualifications requises pour une flexibilité accrue et, ainsi, ils pourront supplanter avec succès en cas de mise à pied. Les employeurs agréeront à de plus forts droits



d'ancienneté dans la mesure où ils savent que les travailleurs les plus anciens sont qualifiés pour accomplir le travail disponible.

D'une part, les cas étudiés illustrent la flexibilité du concept de RBC comme le prouve son habileté à contourner les problèmes créés par une structure d'emploi fragmentée et par l'ancienneté. D'un autre côté, ces cas démontrent l'élasticité du système traditionnel de RST et des pratiques syndicales, telles les classifications d'emplois complexes et les droits acquis d'ancienneté, comme le démontre leur apparente capacité à bien s'adapter dans le contexte d'un système de rémunération selon les compétences.